

Amendment to the Claims:

1. (Currently Amended) A removable cooling module having first and second ends, for use in a reactor for carrying out an exothermic reaction, the cooling module comprising a coolant feed tube; a distribution chamber; a plurality of circulation tubes; and a collection chamber; said coolant feed tube having at its first end an inlet, for charging the coolant module with coolant, and communicating with said distribution chamber at its second end; each of said circulation tubes communicating with the distribution chamber through a first end and communicating with said collection chamber through a second end; the collection chamber having an outlet for discharging coolant; wherein the inlet and the outlet are both located towards the same end of the cooling module, wherein the inlet is adapted to be removably connectable to a charge pipe and the outlet is adapted to be removably connectable to a discharge pipe, wherein the inlet and outlet can be disconnected without the use of a cutting means ~~such as oxy-acetylene cutters.~~
2. (Previously Presented) A cooling module according to claim 1 wherein the second end of the coolant feed tube forms the distribution chamber with the circulation tubes connected thereto.
3. (Previously Presented) A cooling module according to claim 1 wherein the coolant feed tube is located substantially centrally with respect to the circulation tubes.
4. (Previously Presented) A cooling module according to claim 3 wherein the coolant feed tube protrudes through the collection chamber.
5. (Previously Presented) A cooling module according to claim 1 comprising between about 20 and about 4,000 circulation tubes.
6. (Previously Presented) A cooling module according to claim 1 wherein each of the cooling tubes has a length of about 4 to about 40 metres.

7. (Previously Presented) A cooling module according to claim 1 wherein the diameter of each circulation tube is from about 1 to about 10 cm.
8. (Previously Presented) A cooling module according to claim 1 having a square, triangular, rectangular, trapezoidal or hexagonal cross section.
9. (Currently Amended) A reactor for carrying out an exothermic reaction, said reactor comprising a reactor shell an inlet for introducing reactants into the reactor shell an outlet for removing products from the reactor shell; and at least one removable cooling module having first and second ends, for use in a reactor for carrying out an exothermic reaction, the cooling module comprising a coolant feed tube; a distribution chamber; a plurality of circulation tubes; and a collection chamber; said coolant feed tube having at its first end an inlet, for charging the coolant module with coolant, and communicating with said distribution chamber at its second end; each of said circulation tubes communicating with the distribution chamber through a first end and communicating with said collection chamber through a second end; the collection chamber having an outlet for discharging coolant; wherein the coolant feed tube inlet and the collection chamber outlet are both located towards the same end of the cooling module and can be disconnected without the use of a cutting means ~~such as oxy-acetylene cutters~~.
10. (Previously Presented) A reactor according to claim 9 wherein the inlet is adapted to be removably connectable to a charge pipe and the outlet is adapted to be removably connectable to a discharge pipe.
11. (Previously Presented) A reactor according to claim 9 in which the coolant feed tube protrudes through the collection chamber.
12. (Previously Presented) A reactor according to claim 9 in which the reactor comprises between 4 and 100 cooling modules.

13. (Previously Presented) A reactor according to claim 9 wherein the reactor shell comprises an access for accessing the cooling module.
14. (Previously Presented) A reactor according to claim 9 further comprising a support for supporting the cooling module.
15. (Previously Presented) A reactor according to claim 9 wherein the inlet comprises a sparger.
16. (Previously Presented) A reactor according to claim 9 wherein the outlet comprises a filter.
17. (Currently Amended) A method for carrying out an exothermic reaction comprising the steps of: charging a reactor with reactants; cooling the contents of the reactor and removing products from the reactor, wherein cooling is carried out using at least one cooling module comprising a coolant feed tube; a distribution chamber; a plurality of circulation tubes; and a collection chamber; said coolant feed tube having at its first end an inlet, for charging the cooling module with coolant, and communicating with said distribution chamber at its second end; each of said circulation tubes communicating with the distribution chamber through a first end and communicating with said collection chamber through a second end; the collection chamber having an outlet for discharging coolant; wherein the inlet and the outlet are both located towards the same end of the cooling module, wherein the inlet is adapted to be removably connectable to a charge pipe and the outlet is adapted to be removably connectable to a discharge pipe such that they can be disconnected without the use of a cutting means ~~such as oxy-acetylene cutters~~.
18. (Previously Presented) A process according to claim 17 for the synthesis of hydrocarbons wherein the reactor is charged with syngas.
19. (Canceled)